

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021812**Date Inspected:** 13-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** An Qing Xiang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 14, OBG 14W (NWIT # 08533)

This QA inspector performed Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated UT report for this date. The members are identified as OBG Components. The weld designations reviewed are as follows.

SA3176-001-001, 003, 005, 007

SA7531-001-001, 002, 003

SEG3020BB-111

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 14

OBG Seg 14W:

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

Repair welding of weld joint no: SEG3020U-587 [Longitudinal Diaphragm (LD) 3049A to Anchor Plate (AP) 3032A, Complete Joint Penetration (CJP) weld at panel point (PP) 126]. The welder is identified as 067588 and was observed welding in the 3G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC CWI was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-3G(3F)-FCM-Repair-1. Repair welding was done as per Critical Welding Repair (CWR) Report: B-CWR 2854 Rev-0.

The Shielded Metal Arc Welding (SMAW) process on weld joint no: SEG3020L-178 (Stiffener X4886B to Floor Beam (FB) 3325A, Fillet weld at panel point PP 127). The welder is identified as 067572 and was observed welding in the 4F position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-P-2114-FCM-1.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020L-125 (Stiffener RS8502B on Bottom Plate (BP) 3091A to Floor Beam (FB) 3327A, CJP weld at Panel Point PP127). The welder is identified as 066239 and was observed welding in the 3G position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-T-2233-ESAB.

The Flux Cored Arc Welding (FCAW) process on weld joint no: SEG3020L-111 (Stiffener RS8502B to Bottom Plate (BP) 3091A, Fillet weld in between Panel Points PP127~127.3). The welder is identified as 066239 and was observed welding in the 2F position. ZPMC QC was identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with WPS: B-T-2132-ESAB.

Repair welding of weld joint no: SEG3020AV-012 (Stiffener on Floor Beam (FB) 3343A to Longitudinal Diaphragm (LD) 3048A, CJP weld at Panel Point PP 128.3). The welder is identified as 051348 and was observed welding in the 4G position. Welding process was identified as Shielded Metal Arc Welding (SMAW). ZPMC CWI was identified as Mr. An Qing Xiang. The welding variables recorded by this QC appeared to comply with WPS: 345-SMAW-4G(4F)-FCM-Repair-1. Repair welding was done as per Welding Repair Report (WRR): B-WR 20393 Rev-0.

During repair welding of above mentioned weld joint, this QA inspector observed that there were no run off tabs provided at the end of the weld joint. This issue was discussed with ZPMC CWI Mr. An Qing Xiang and CT Lead QA. Mr An Qing Xiang informed the ZPMC personnel to provide the run off tabs and then start the repair work. There after this QA observed that the run off tabs were attached to the end of the weld joint while the repair work was being performed. See attached photographs for additional details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang : 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Gaikwad,Umesh

Quality Assurance Inspector

Reviewed By: Peterson,Art

QA Reviewer